



Photos courtesy of: Darren Austin
Shore Power Plug-In at the Port of Galilee



successstories

Success Story #6

Mobile Source Pollution Reduction

Marine Vessels — Shore Power Plug-In



Under the Rhode Island Clean Diesel Program funding under DERA, necessary upgrades and installations of shore power facilities were made to the Port of Galilee. The installation allows for docked vessels to obtain their power from the dock-side facilities and turn off onboard diesel equipment normally used to supply energy to the vessels while loading and unloading.



Rotted out remnants of an old power station at the Port of Galilee.

The necessary shore power improvements contribute to the viability and support of the commercial fishing industry through both shore-based energy saving and onboard fuel savings.

Providing reliable alternate power sources where diesel emission can be eliminated or reduced is important at our ports. The funding helped reduce diesel emissions and protect human health and the environment for Rhode Island. According to the EPA, exposure to diesel exhaust, even at low levels, is a serious health hazard and can cause respiratory problems such as asthma and bronchitis. The estimated emissions reductions at the Port of Galilee can be seen in the adjacent table.

Emissions Reductions:

Marine vessel shore power	Annual PM ₁₀ Reduction Kg/year*	Annual VOC Reduction Kg/year*	Annual CO Reduction Kg/year*	Annual NO _x Reduction Kg/year*
	316	395	1,055	4,740

*USEPA Diesel Emission Quantifier (version 2009) kg/day emission reduction

Note: Assume generator size per vessel 39 kW, 6 vessels, 50 days in port/year

AP-42 section 3.3 October 1996 emission factors used for generator.

Implementation:

- ★ \$295,000 invested in the installation and upgrades to the Port of Galilee.
- ★ Reduced health risks from diesel particulate matter (DPM), VOC, CO, and NO_x.

Resources:

News Release:

<http://www.dem.ri.gov/news//2009/pr/0415091.htm>

Work Plan Narrative:

<http://www.dem.ri.gov/programs/benviron/air/pdf/diesstim.pdf>